

IN THE CLAIMS

Please cancel Claims 1 and 12, without prejudice or disclaimer of subject matter.

Please amend Claims 2-4, 6, 7, 11, 13-18, 22, 23, 25, 27-31 and 33, and add new Claims 35-37, to read as follows.

1. (Canceled)

2. (Currently Amended) Data processing apparatus according to claim [[1]]
4, wherein said analysing means is adapted to identify the positions in accordance with pause criteria for the natural language input.

3. (Currently Amended) Data processing apparatus according to claim [[1]]
4 or claim 2, wherein said generating means is adapted to add marker means to the identified positions in the grammar rules at which pauses can occur in the natural language input to generate the modified data structure.

4. (Currently Amended) Data processing apparatus ~~according to Claim 1 or 2~~
comprising:

receiving means for receiving a data structure defining grammar rules for
recognition of a natural language input;

analysing means for analysing the data structure to identify positions in the
grammar rules at which pauses can occur in the natural language input; and

generating means for generating a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein.

wherein said generating means is adapted to fragment the grammar rules in accordance with said identified positions to generate sub grammar rules to form said modified data structure.

5. (Original) Data processing apparatus according to claim 4, wherein said generating means is adapted to form a hierarchical structure using said sub grammar rules to form said modified data structure.

6. (Currently Amended) Data processing apparatus according to Claim ~~[[1]]~~ 4 or 2, wherein said receiving means is adapted to receive a data structure defining grammar rules for use in speech recognition of a natural language speech input, and said generating means is adapted to generate said modified data structure defining modified grammar rules for speech recognition of a natural language speech input with pauses therein.

7. (Currently Amended) Data processing apparatus ~~according to Claim 1 or 2~~ comprising:

receiving means for receiving a data structure defining grammar rules for recognition of a natural language input;

analysing means for analysing the data structure to identify positions in the grammar rules at which pauses can occur in the natural language input; and

generating means for generating a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein,

wherein said receiving means is adapted to receive said data structure defining grammar rules for recognition of a natural language input as a first modality input in conjunction with associated events in at least one further modality input, said data structure defining the association between events in each modality input, and events in said first modality input comprising units in the natural language.

8. (Original) Data processing apparatus according to claim 7, wherein said analysing means is adapted to identify said positions in the grammar rules based on events in at least one said further modality input.

9. (Original) Data processing apparatus comprising:
receiving means for receiving a data structure defining grammar rules for recognition of a natural language input;
analysing means for analysing the data structure to identify positions in the grammar rules at which events in at least one further modality input can occur in the natural language input as a first modality input; and

generating means for generating a modified data structure defining modified grammar rules for recognition of a natural language input as the first modality input in conjunction with associated events in a said further modality input, said data structure defining

the association between events in each modality input, and events in said first modality input comprising units in the natural language.

10. (Original) Data processing apparatus according to claim 9, wherein said analysing means is adapted to identify positions in the grammar rules at which pauses can occur in the natural language input based on events in at least one said further modality input.

11. (Currently Amended) Data processing apparatus according to claim ~~[[,]]~~ 9 or 10, wherein said generating means is adapted to generate a further modified data structure defining said modified grammar rules and the relationships with events in ~~the~~ or each further modality input.

12. (Canceled)

13. (Currently Amended) A data processing method according to claim ~~[[12]]~~ 15, wherein the analysing step includes identifying the positions in accordance with pause criteria for the natural language input.

14. (Currently Amended) A data processing method according to claim ~~[[12]]~~ 15 or claim 13, wherein the generating step includes adding marker means to said data structure to identify the positions in the grammar rules at which pauses can occur in the natural language input.

15. (Currently Amended) A data processing method ~~according to Claim 12 or 13~~ comprising the steps of:

receiving a data structure defining grammar rules for recognition of a natural language input;

analysing the data structure to identify positions in the grammar rules at which pauses can occur in the natural language input; and

generating a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein,

wherein the generating step includes fragmenting the grammar rules in accordance with said identified positions to generate sub grammar rules to form said modified data structure.

16. (Currently Amended) A data processing method according to Claim 15, wherein the generating step includes forming a hierarchical structure using said sub grammar rules to form said modified data structure.

17. (Currently Amended) A data processing method according to Claims ~~[[12]]~~ 15 or 13, wherein the receiving step comprises receiving a data structure defining grammar rules for use in speech recognition of a natural language speech input, and the generating step comprises generating a modified data structure defining modified grammar rules for speech recognition of a natural language speech input with pauses therein.

18. (Currently Amended) A data processing method ~~according to Claim 12 or 13~~, comprising the steps of:

receiving a data structure defining grammar rules for recognition of a natural language input;

analysing the data structure to identify positions in the grammar rules at which pauses can occur in the natural language input; and

generating a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein,

wherein the receiving step comprises receiving a data structure defining grammar rules for recognition of a natural language input as a first modality input in conjunction with associated events in at least one further modality input, said data structure defining the association between events in each modality input, events in said first modality input comprising units in the natural language.

19. (Original) A data processing method according to claim 18, wherein the analysing step comprises identifying said positions in the grammar rules based on events in at least one said further modality input.

20. (Original) A data processing method comprising:
receiving a data structure defining grammar rules for recognition of a natural language input;

analysing the data structure to identify positions in the grammar rules at which events in at least one further modality input can occur in the natural language input as a first modality input; and

generating a modified data structure defining modified grammar rules for recognition of a natural language input as the first modality input in conjunction with associated events in a said further modality input, said data structure defining the association between events in each modality input, and events in said first modality input comprising units in the natural language.

21. (Original) A data processing method according to claim 20, wherein the analysing step comprises identifying positions in the grammar rules at which pauses can occur in the natural language input based on events in at least one said further modality input.

22. (Currently Amended) A data processing method according to claim 21, wherein the generating step includes generating a further modified data structure defining said modified grammar rules and the relationships with events in ~~the~~ or each further modality input.

23. (Currently Amended) Apparatus for generating data in a computer usable form, the apparatus comprising:

receiving means for receiving a natural language input with a number of pauses therein; and

recognition means for recognising said natural language input using the modified data structure generated using the method of any one of Claims ~~[[12]]~~ 15, 13, 20~~[[,]]~~ or 21 to generate data in computer usable form.

24. (Original) Apparatus according to claim 23, wherein said recognising means comprises speech recognition means for recognising a natural language speech input.

25. (Currently Amended) A method of generating data in a computer usable form, the method comprising:

receiving a natural language input with a number of pauses therein; and

recognising said natural language input using the modified data structure generated using the method of Claim 20 to generate data in computer usable form.

26. (Original) A method according to claim 25, wherein the recognising step comprises speech recognition of a natural language speech input.

27. (Currently Amended) Apparatus for generating data in a computer usable form, the apparatus comprising:

first modality receiving data generated for a natural language input by the apparatus of claim 23, said data comprising recognised units of the natural language and comprising data of a first modality input;

further modality receiving means for receiving data identifying events in at least one further modality input;

data structure receiving means for receiving a further modified data structure defining modified grammar rules and the relationships with events in ~~the~~ or each further modality, said further modified data structure having been generated using the method of claim 18;

analysing means for analysing the first modality input data and ~~the~~ or each further modality input data to determine if they match with any said modified grammar rule and related events in ~~the~~ or each further modality; and

generating means for generating computer usable data in dependence upon said analysis by said analysing means.

28. (Currently Amended) Apparatus according to claim 27, wherein said first modality receiving means is adapted to receive recognition data comprising an ordered list of likely natural language units to accompany the most likely natural language for each natural language unit recognised, and said analysing means is adapted to use said ordered list when the most likely natural language units do not result in a match with any modified grammar rule and related events in ~~the~~ or each further modality.

29. (Currently Amended) Apparatus according to claim 27, wherein said first modality receiving means is adapted to receive speech recognition data.

30. (Currently Amended) A method of generating data in a computer usable form, the method comprising:

a first receiving step of receiving data generated for a natural language input by the method of claim 25, said data comprising recognised units of the natural language, and comprising data of a first modality input;

a second receiving step of receiving data identifying events in at least one further modality input;

a third receiving step of receiving a further modified data structure defining modified grammar rules and the relationship with events in ~~the~~ or each further modality, said further modified data structure having been generated ~~during~~ using the method of claim 22;

analysing the first modality input data and ~~the~~ or each further modality input data to determine if they match with any said modified grammar rule and related events in ~~the~~ or each further modality; and

generating computer usable data in dependence upon said analysis.

31. (Currently Amended) A method according to claim 30, wherein the first receiving step comprises receiving recognition data comprising an ordered list of likely natural language units to accompany the most likely natural language unit for each natural language unit recognised, and the analysis step includes using the ordered list when the most likely natural language units do not result in a match with any modified grammar rule and related events in ~~the~~ or each further modality.

32. (Previously Presented) A method according to claim 31, wherein the first receiving step receives speech recognition data.

33. (Currently Amended) Processor implementable instructions for controlling a processor to carry out the method of any one of claims [[12]] 15, 20, 21, ~~or~~ 22, or 25[[,]].

34. (Original) A carrier medium for carrying the processor implementable instructions according to claim 33.

35. (New) Data processing apparatus comprising:
a receiver operable to receive a data structure defining grammar rules for recognition of a natural language input;
an analyser operable to analyse the data structure to identify positions in the grammar rules at which pauses can occur in the natural language input; and
a generator operable to generate a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein,
wherein said generator is operable to fragment the grammar rules in accordance with said identified positions to generate sub grammar rules to form said modified data structure.

36. (New) Data processing apparatus comprising:

a receiver operable to receive a data structure defining grammar rules for recognition of a natural language input;

an analyser operable to analyse the data structure to identify positions in the grammar rules at which pauses can occur in the natural language input; and

a generator operable to generate a modified data structure defining modified grammar rules for recognition of a natural language input with pauses therein,

wherein said receiver is operable to receive said data structure defining grammar rules for recognition of a natural language input as a first modality input in conjunction with associated events in at least one further modality input, said data structure defining the association between events in each modality input, and events in said first modality input comprising units in the natural language.

37. (New) Data processing apparatus comprising:

a receiver operable to receive a data structure defining grammar rules for recognition of a natural language input;

an analyser operable to analyse the data structure to identify positions in the grammar rules at which events in at least one further modality input can occur in the natural language input as a first modality input; and

a generator operable to generate a modified data structure defining modified grammar rules for recognition of a natural language input as the first modality input in conjunction with associated events in a said further modality input, said data structure defining

the association between events in each modality input, and events in said first modality input comprising units in the natural language.